

**ABSTRACT OF THE DISCLOSURE**

An endoscopic system for in-vivo tissue characterization, using a nonirradiative electromagnetic sensor, is described. The endoscopic system is further configured to employ several follow-up procedures, for example, biopsy sampling, localized surgery, dispensing a medicament, and the like, so that on the whole, the endoscopic system provides for the early detection of cancerous and pre-cancerous tissue, in vivo, and for the application of immediate follow-up procedures to any such tissue.